

# A New Role for CTE

By Mary Horne

## THE MILLENNIUM GENERATION DESCRIBES THE STUDENTS

currently occupying middle and high school classrooms across the country—often the ones that teachers repeatedly must ask to unplug and pay attention. This particular generation has been the subject of countless news articles highlighting their disappointing performance on international reading, math and science tests, raising doubts about their ability to compete in a world economy.

The struggle to reach the Millennium Generation, known as the Millennials, is evident in the concentration of professional development courses focusing on methods of educating these high-tech students, many of whom have short attention spans and very little interest in their teachers' "antiquated" teaching practices. The ultimate goal of these seminars and in-services is to raise test scores and school ranking while attempting to prepare this generation for the adult world of work and citizenship. Are the students in the American public education system sufficiently acquiring literacy, numeracy and technological skills to survive global competition? Will those who do not move on to higher education, as well as those who do, be prepared to meet demands of the 21st century workforce? Educators in all fields feel the pressure; more expectations are falling on career and technical education (CTE) teachers than ever before.

### Technology and CTE

Technology and CTE are two major players in improving education to meet the needs of 21st century learners. According to Bill Daggett, founder and president of the International Center for Leadership in Education, "The changing American



workplace is impacted by fast changing technologies. Leaders must prepare graduates for this rapidly changing world by instilling the concept of lifelong learning in a technological world." In order to motivate this generation to appreciate lifelong learning and to adapt to ever-changing educational and career demands, educators must utilize the technologies that are such an integral part of their students' experience. Administrators are now expecting teachers to become proficient in technology they never had as students. CTE teachers today not only

need to stay on top of the professional standards of their particular fields, but they also need to learn new technological skills—many of which their students have already mastered.

### Making Core Skills Relevant

In addition to updating equipment and training staff to keep up with technology, schools are also challenged to make the core skills—reading, writing, science and math—relevant to students, to show them that their academic achievement is directly tied to the quality of life they





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will have after they leave school. CTE has been identified as the ideal setting for students to put literacy, numeracy, science/technology and critical thinking skills into meaningful practice. Daggett and staff at the center developed the Rigor/Relevance Framework—which incorporates the six cognitive levels of Bloom’s Taxonomy with five levels of knowledge in action—to illustrate the ideal combination of high academic standards and real-world applications in curriculum, instruction and assessment. The framework functions as a plan for instruction (either at the class-

room, institution or community level) and the goal of this plan is for students to finish school with the ability to use the higher-level thinking skills that are outlined in Bloom’s Taxonomy in conjunction with knowledge of multiple disciplines (math, science, language) to create solutions to unpredictable problems and situations.

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## CTE EDUCATORS AND STUDENTS BENEFIT FROM THIS EXCITING SHIFT IN EDUCATION THAT EMPHASIZES APPLICATION, RATHER THAN JUST ACQUISITION OF KNOWLEDGE.

Daggett’s position is that merely reinforcing some core academic skills in the CTE classroom is not enough to prepare 21st century learners for the demands that they will face in the workforce. “Career and technical education,” argues Daggett, “must be seen as a primary deliverer of strong academic preparation.” He proposes that schools need to restructure from a program in which core knowledge is taught in a vacuum, removed from practical applications, to an “applied academics program where vocational skills become the platform in which the academic skills are delivered.” School improvement, according to Daggett, is not just a matter of raising standards, because rigor alone does not make students successful outside of the classroom. “Relevance makes rigor possible,” says Daggett.

For the highest achievement, students must be able to apply the knowledge to situations they might actually encounter in their careers, rather than simply studying the concepts detached from relevant

contexts. While restructuring to fit the framework might not be in every school’s near future, teachers can still use the basic principle of multidisciplinary knowledge in action as a guide to address the needs of their students in their curriculum and to prepare for the future. For Millennials, and the generations that follow, career pathways are vehicles for relevance and rigor.

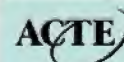
### Pathways to Success

This new attention on career pathways might cause some anxiety for CTE teachers who are unsure of the many expectations that are being placed upon them; however, CTE educators and students benefit from this exciting shift in education that emphasizes application, rather than just acquisition of knowledge. Courses that were once considered of secondary importance to the core academics are now becoming center stage in 21st century learning.

Students’ interest in the professional field can be used as motivation to foster competence in the core skills—skills that are not separate from the profession, but are in fact integrated within it and necessary for students to achieve their highest potential. Many of these skills are reinforced (even if informally) in the CTE classroom anyway, but perhaps not enough. Taking a more holistic approach to education will be a challenge, but it is also a prime opportunity for educators to contribute in the development of a skilled, competitive and adaptive American workforce. **T**

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